

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A duo-binary optical transmission apparatus, comprising:
a light source for outputting a light carrier;
an optical modulator for modulating the light carrier according to a 2-level data signal;

the optical modulator comprises:

a code converter for converting the 2-level data signal into a duo-binary signal;
a driving signal generator for receiving the duo-binary signal and generating a modulator driving signal;
a light intensity modulator for receiving the modulator driving signal, for converting a phase of the light carrier, and for outputting a modulated optical signal; and
an optical band pass filter for receiving the modulated optical signal from the light intensity modulator, for filtering the modulated optical signal to be suitable for a predetermined band, and for outputting a duo-binary optical signal; and
a wide band pass filter having a bit ratio of $0.7/T$.

2. (Original) The duo-binary optical transmission apparatus of claim 1, wherein the light intensity modulator is a Z-cut dual armed light intensity modulator.

3. (Original) The duo-binary optical transmission apparatus of claim 1, wherein the light intensity modulator is an X-cut dual armed light intensity modulator.

4. (Original) The duo-binary optical transmission apparatus of claim 1, wherein the characteristic of the output signal of the wide band pass filter is varied according to a bandwidth of the wide band pass filter.

5. (Original) A duo-binary optical transmission apparatus, comprising:
a duo-binary precoder for encoding a 2-level data signal;
a pair of driving amplifiers coupled to receive the output of the duo-binary precoder;
a laser light source for outputting a light carrier;
a light intensity modulator for modulating the light carrier according to the 2-level data signal; and,
a wide band pass filter coupled to receive the output of the light intensity modulator to generate a duo-binary optical signal.

6. (Original) The duo-binary optical transmission apparatus of claim 5, wherein the characteristics of the duo-binary optical signal are varied by controlling an applied voltage and a bandwidth of the wide band pass filter.

7. (Original) The duo-binary optical transmission apparatus of claim 5, wherein the wide band pass filter is further operative to filter the modulated light signal to be suitable for a predetermined band.

8. (Original) The duo-binary optical transmission apparatus of claim 5, wherein the pair of driving amplifiers is configured to apply 3-level signals to the light intensity modulator.

9. (Original) The duo-binary optical transmission apparatus of claim 5, wherein the light intensity modulator is a Z-cut dual armed light intensity modulator.

10. (Original) The duo-binary optical transmission apparatus of claim 5, wherein the light intensity modulator is an X-cut dual armed light intensity modulator.

11. (Original) The duo-binary optical transmission apparatus of claim 5, wherein the light modulator is further operative to convert a phase of the light carrier.